



NOAA FISHERIES

Habitat
Conservation
Division

Questions & Answers about Suction Dredging

Q: How does suction dredging damage fish or habitat regulated by NMFS?

A: Suction dredging is designed to directly disturb stream bottoms. Lethal effects may occur from sucking eggs or young fish out of the gravel; crushing nests (redds) and trampling or disturbing eggs or young fish inside them; or from dispersing sediment throughout the streambed, which can deplete the oxygen supply to eggs in redds. Nonlethal effects include harassing fish, causing them to move out of preferred habitat, disrupting feeding patterns, altering habitat, and disrupting benthic communities that young fish need for food.

Q: Where are the listed salmon and steelhead in Idaho?

A: All of Idaho's salmon and steelhead are present in the Lower Snake River below Hells Canyon Dam, the mainstem Salmon River, and the mainstem Clearwater River. Adults and juvenile fall Chinook salmon use these larger mainstem reaches for migration and as spawning grounds. Spring/summer Chinook salmon and steelhead are more widely distributed, with habitat extending into tributaries of the Snake, Salmon, and Clearwater River, using them for migration, spawning, and rearing. Sockeye salmon use the mainstem Snake and Salmon for migration, spawning in the high mountain Lakes near Stanley, Idaho. The timing of the various life history phases and habitat preferences are different for each of the species so they are often in different locations at different times of the year.

Q: When are fish and habitat most susceptible to being harmed?

A: Spring/summer Chinook adults migrate from the ocean back to Idaho from April through August. They hide in streams and rivers until spawning from August through September; and their eggs may remain in the gravel through March of the following year. After hatching, young fish may stay in the gravel in or near redds for a month. Eventually young fish will spread out to reduce competition and search for food, but will continue to use spaces within streambeds for cover until migrating to the ocean one to three years later.



Jerry Myers, Trout Unlimited

Steelhead adults migrate from the ocean to Idaho from July to April. They overwinter in large rivers and move into smaller streams to spawn from March into June. Their eggs or young fish may remain in the gravel as long as July. Juveniles use spaces within streambeds for cover until migrating to the ocean one to five years later.

Fall Chinook adults migrate from the ocean back to Idaho from July through October. They spawn from September until November in large mainstem rivers. Eggs or young fish may remain in the gravel until April. Downstream migration begins almost immediately and lasts until August. Some migrants overwinter in larger rivers and/or reservoirs and resume migration the following March through June.



Jerry Myers, Trout Unlimited

Sockeye adults migrate from the ocean back to Idaho from May through September. They spawn from September to November. Eggs or young fish may remain in the gravel of lakes, streams, and rivers until April or June. Young fish rear for two years along lake shores and shallow waters or marshes of streams and rivers until migrating to the ocean from April through July.

These times are generalized and will vary based on location throughout the state. However, because juvenile fish rear in these streams year-round, it is difficult to identify a window for safely conducting mining where anadromous fish would not be harmed or harassed by suction dredging activities. Any window used would be narrow and need careful consideration at a scale smaller than the statewide permit EPA has prepared. Table 1 below shows the timeframes that eggs or very young fish for each species are in the gravel and most susceptible to being harmed.

| Table 1. Time Frames With Eggs Or Alevins In The Gravel. | | | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | aug | sep | oct | nov | dec | jan | feb | mar | apr | may | jun | jul |
| F chinook | | | | | | | | | | | | |
| SS chinook | | | | | | | | | | | | |
| Steelhead | | | | | | | | | | | | |
| Sockeye | | | | | | | | | | | | |

Q: What has NMFS allowed in the past or might allow in the future?

A: In the past NMFS has approved dredge mining activities in occupied streams after carefully reviewing the specific proposals. An example is the recreational dredge mining season allowed in the Lolo Creek Area. It is possible that additional mining areas may be approved in the future if there is an entity willing to pursue consultation and oversee the activities.

For more information about the consultation process contact:

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